UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,612	07/17/2003	Eric T. Stubbs	M4065.0322/P322-A	9666

24998 7590 03/30/2005

DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP
2101 L Street, NW
Washington, DC 20037

EXAMINER	
ANDERSON, MATTHEW D	

ART UNIT	PAPER NUMBER
2186	

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/620,612	STUBBS ET AL.	
	Examiner	Art Unit	
	Matthew D. Anderson	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *34-59* is/are pending in the application.

4a) Of the above claim(s) *45-52,58 and 59* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *34-44 and 53-57* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 34-40 and 53-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Dell et al. (US Patent # 6,092,146).

3. With respect to claim 34, Dell et al. disclose:

a signaling circuit for encoding presence detect data comprising: a first signal encoding portion for encoding first information, said first information being disposed in a hard-wired circuit of a semiconductor memory device, said hard-wired circuit formed during manufacturing of said semiconductor memory device, by teaching in Table 1 in column 6 of serial presence detect (SPD) data being factory set;

and a second signal encoding portion for encoding second information said second information being disposed in a programmable circuit of said semiconductor memory device, said programmable circuit programmed subsequent to manufacturing of said semiconductor memory device, by teaching in Table 1 and the subsequent tables indicated therein for the programming of particular SPD bytes.

4. With respect to claim 35, Dell et al. disclose data relating to a storage capacity of said semiconductor memory device, as shown in Table 3.2 in column 7.

5. With respect to claim 36, Dell et al. disclose data relating to a data bus width of said semiconductor memory device, as shown by the data width sizes in Table 2.1.

6. With respect to claim 37, Dell et al. disclose data relating to a data access speed of said semiconductor memory device, as shown in Table 4.2 in column 7.

7. With respect to claim 38, Dell et al. disclose data relating to a column address strobe latency of said semiconductor memory device, as shown in Table 3.2 in column 7.

8. With respect to claim 39, Dell et al. disclose data relating to a data refresh rate of said semiconductor memory device, as discussed in column 5, lines 60+.

9. With respect to claim 40; Dell et al. disclose data relating to an interface voltage of said semiconductor memory device, as discussed in column 6, lines 5+.

10. With respect to claim 53, Dell et al. disclose:

receiving a first signal at a memory controller from said memory integrated circuit, said first signal encoding first information hardwired into said memory integrated circuit during manufacturing of said memory integrated circuit, by teaching in Table 1 in column 6 of serial presence detect (SPD) data being factory set;

and receiving a second signal at a memory controller from said memory integrated circuit, said second signal encoding second information programmed into said memory integrated circuit subsequent to manufacturing of said memory integrated circuit, by teaching in Table 1 and the subsequent tables indicated therein for the programming of particular SPD bytes.

11. With respect to claim 54, Dell et al. disclose receiving a control signal at said memory integrated circuit from said memory controller, said control signal being related to at least one of said first signal and said second signal, as shown in figure 4.

12. With respect to claim 55, Dell et al. disclose receiving an address signal at said memory integrated circuit from said memory controller, said address signal having a format related to at least one of said first signal and said second signal, as shown by the RAS and CAS signals in figure 4.

13. With respect to claim 56, Dell et al. disclose recognizing an identity of said memory integrated circuit at said memory controller based on said first and second signals, by teaching in Table 1 of using the SPD bytes to determine the memory type or configuration type.

14. With respect to claim 57, Dell et al. disclose wherein said first and second information comprises presence detect data, as shown in Table 1.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. Claims 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dell et al..

17. With respect to claims 41, Dell et al. teaches all other limitations, including wherein said first signal portion and said second signal portion comprise first and second serial data signals respectively, as shown in Table 1, but does not specifically disclose said first and second serial data signals being adapted to be transmitted over a single data line.

18. It would have been obvious to one of ordinary skill in the art, having the teachings of Dell *et al.* before him at the time the invention was made, to modify the presence detect bits

taught by Dell *et al.*, to be sent over a single data line in order to conserve chip space, as well known in the art.

19. With respect to claims 42-44, the difference between Dell *et al.* and the claims is the claims recite the circuit being a fuse device, antifuse device, or a transistor-based device. However, the specific use of these particular device types does not have a disclosed purpose nor are disclosed to overcome any deficiencies in the prior art. Accordingly, it would have been an obvious matter to one skilled in the art to utilize the circuitry of Dell *et al.* with any of these types of devices in order to gain their benefits, since applicant has not disclosed that a particular device type, as opposed to other memory devices, overcomes a deficiency in the prior art or is for any stated purpose.

Response to Arguments

20. Applicant's arguments filed 3/17/05 have been fully considered but they are not persuasive.

21. With respect to the independent claims, the Applicant alleges that Dell does not disclose presence detect data disposed in a hard-wired circuit of a semiconductor memory device, nor does Dell disclose presence detect data disposed in a programmable circuit of said semiconductor memory device.

22. With regard to the hard-wired circuit, the Applicant alleges that although certain serial presence detect data of Dell is "factory set", it is not "hard-wired" because it the EEPROM is programmed as shown in figure 5. The discussion of figure 5 in column 5, lines 1-5, states that

the EEPROM is programmed via tables 2.1, 2.2, 3.1, 3.2, 4.1, 4.2, and 4.3. As shown in Table 1 in column 6, these tables correspond to the SPD bytes (bytes 2-6 and 9-11) which are NOT factory set. This shows that the only programming performed by Dell is done to presence detect bits not factory. And therefore, because these bytes are the only bytes to be re-programmed, the factory set bytes remain unchanged, and could be considered as "hard-wired".

23. With regard to the programmable presence detect circuit, the SPD re-programming discussed above clearly shows this. Therefore Dell does disclose presence detect data in a hard-wired circuit and in a programmable circuit.

Conclusion

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Anderson whose telephone number is (571) 272-4177. The examiner can normally be reached on Monday-Friday, 2nd Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew M. Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Matthew D. Anderson
Primary Examiner
Art Unit 2186